

REMARKS

As a preliminary matter, Applicants appreciate the Examiner's acknowledgement of allowable subject matter contained in claims 2, 13, and 17.

Claims 1, 5, 9 and 12-21 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse the rejection.

Applicants specifically disclose in the specification and drawings a digital signal processor 116 that includes a read slice setting section 21, a write/erase setting section 22, and an offset detection circuit 30 that are used for setting a write and/or erase slice level for detecting an off/track positioning of the light beam with respect to a track on the recording medium depending on the write and/or erase power (see Applicants' specification page 15, lines 14 et seq. and FIG. 3). Accordingly, since the level of skill in the art of hard disk software design is high, and no undue or unreasonable experimentation is required to practice the present invention, the rejection should be withdrawn. However, in order to expedite prosecution, Applicants amended the claims to more clearly emphasize the features of the present invention. For these reasons, withdrawal of the §112 rejection of claims 1, 5, 9 and 12-21 is respectfully requested.

Claims 10 and 21 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In response, Applicants amended claims 10 and 21 to clarify that a dependency with which the write parameters are changed with respect to the write power is different from the dependency with which the erase parameters are changed with

respect to the erase power. As disclosed in Applicants' specification, on page 20 et seq., the power dependencies of the erase slice level and write slice level are different. This is because, among other things, the coefficients "A" and "B" obtained from the first order formulas containing these coefficients are different. For these reasons, withdrawal of the §112 rejection of claims 10 and 21 is respectfully requested.

Claims 1, 9, 12 and 20 stand rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsukahara et al. (U.S. Patent No. 6,249,496), in view of Furuta et al. (U.S. Patent No. 5,920,534). Applicants respectfully traverse the rejections because both of the cited references fail to teach or suggest changing a write and/or erase parameter, as in the present invention.

Tsukahara discloses detecting an off-track state that involves a slice level evaluation. However, Tsukahara fails to teach changing the write and/or erase slice level for detecting an off-track. Moreover, Tsukahara fails to disclose or suggest changing the write and/or erase parameter such as a write and/or erase slice level, depending on a write and/or erase power. For this reason, at least the §102 rejection should be withdrawn.

Furuta discloses optimizing a slice level at the time of data reproduction. However, Furuta also fails, like Tsukahara, to teach or suggest optimizing the slice level for off-track detection. For this reason, Applicants respectfully submit that it would not be obvious to those skilled in the art to combine the teachings of Tsukahara and Furuta. Nevertheless, assuming *arguendo* that the combination of Tsukahara and Furuta was possible, this combination still fails to teach or suggest changing the write and/or erase

slice level for detecting an off-track or, changing the write and/or erase slice level for detecting an off-track or, changing the write and/or erase parameters such as the write and/or erase slice level, depending on the write and/or erase power. Accordingly, withdrawal of the §§102 and 103 rejections of claims 1, 9, 12 and 20 is respectfully requested.

Claim 3 stands rejected under 35 U.S.C. 103(a) as being obvious over Tsukahara and further in view of Furuta. Applicants traverse the rejection for the reasons recited above, and because claim 3 is dependent from claim 1. Withdrawal of the §103 rejection is respectfully requested.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukahara and Furuta, and further in view of Ohara et al. (U.S. Patent No. 5,140,580) and Richards et al. (U.S. Patent No. 5,333,138). Applicants respectfully traverse the rejection for the reasons recited above to overcome the rejections of claim 1, and also because Ohara and Richards et al. both fail to remedy the deficiencies noted above.

Ohara discloses a method of obtaining an optimum recording power. However, Ohara fails to teach or suggest changing the write and/or slice level for detecting an off-track according to the write and/or erase power.

Richards teaches shock detection using a sensor and interrupting recording upon shock detecting. Like Ohara, Richards fails to teach or suggest changing the write and/or erase slice level. Accordingly, the combination of Richards, Ohara, Tsukahara and Furuta fails to teach or suggest changing the write and/or erase slice level for

detecting an off-track. For these reasons, withdrawal of the §103 rejection of claim 4 is respectfully requested.

Claims 5 and 16 stand rejected under 35 U.S.C. 102(a) as being unpatentable over Ohara in view of Furuta. Applicants respectfully believe that this is a §103 rejection, and will respond accordingly. Applicants traverse the rejection for the reasons recited above to overcome the rejection of independent claim 1, and also because Ohara fails to remedy the deficiencies noted above.

As discussed above, Ohara fails to teach or suggest changing the write and/or erase slice level for detecting an external vibration or shock depending on the write and/or erase power, as recited in amended claims 5 and 16. Furuta discloses optimizing a slice level. Furuta does not teach or suggest optimizing the slice level for detecting external vibration or shock. For this reason, Applicants believe that one skilled in the art would not be motivated to combine the teachings of Ohara and Furuta. Moreover, assuming *arguendo* that the references could be combined, the combination still fails to teach or suggest changing the write and/or erase level for detecting external vibration or shock depending on the write and/or erase power. For these reasons, withdrawal of the §102/103 rejection of claims 5 and 16 is respectfully requested.

Claims 7 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ohara, Furuta and further in view of Yoshimoto et al. (EP 392561). Applicants respectfully traverse the rejection for the reasons recited above to overcome

the rejections of independent claim 1, and also because Ohara and Yoshimoto fail to remedy the deficiencies noted above.

Yoshimoto discloses varying a threshold value that is used to detect an off-track. Yoshimoto fails to teach or suggest changing the write and/or erase slice level in order to detect an external vibration or shock depending on the write and/or erase power, as recited in amended independent claims 5 and 16. Therefore, since claims 7 and 18 depend from independent claims 5 and 16, respectfully, withdrawal of the §103 rejection is respectfully requested.

Claims 8 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ohara and Furuta in view of Richards. Applicants respectfully traverse the rejection.

Since claims 8 and 19 depend upon claims 15 and 16, respectfully, they necessarily include all of the features of their associated independent claim plus other additional features. Thus, Applicants submit that the §103 rejections of claims 8 and 19 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claims 5 and 16. Applicants respectfully request that the §103 rejection of claims 8 and 19 also be withdrawn.

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukahara and Furuta, and further in view of Sakurai et al. (U.S. Patent No. 5,991,251). Applicants traverse the rejection for the reasons recited above to overcome the rejection of independent claim 9.

Sakurai discloses changing the method of adjusting laser power depending on the type of recording medium. However, Sakurai fails to teach or suggest changing the write and/or erase parameter, such as the write and/or erase slice level for detecting an off-track, depending on the write and/or erase power, as recited in amended claim 9. Accordingly, since each of the cited references fail to teach or suggest changing the write/erase parameter, as discussed above, withdrawal of the §103 rejection of claim 11 is respectfully requested.

Claims 14-15 and 22 stand rejected based on combinations of Yoshimoto, Furuta, Ohara, Richards and Sakurai. Applicants respectfully traverse the rejection.

Since claims 14-15 and 22 depend upon claims 12 and 20, respectfully, they necessarily include all of the features of their associated independent claim plus other additional features. Thus, Applicants submit that the §103 rejections of claims 14-15 and 22 have also been overcome for the same reasons mentioned above to overcome the rejection of independent claims 12 and 20. Applicants respectfully request that the §103 rejections of claims 14-15 and 22 also be withdrawn.

Claims 1, 5, 9-10, 12, 16 and 20-21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Tani (U.S. Patent No. 6,072,671). Applicants traverse the rejection for the reasons recited above with respect to the rejection of independent claim 1.

Tani proposes fine adjustment of laser power. However, Tani fails to teach changing the write and/or erase slice level for detecting an off-track or an external

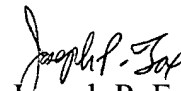
vibration/shock or a write and/or erase parameter, as recited in amended independent claims 1, 5, 9, 12, 16 and 20. For these reasons, withdrawal of the §102 rejection of claims 1, 5, 9-10, 12, 16 and 20-21 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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